

LANDSCAPE MANAGEMENT PLAN

VILLAGE OF KEY BISCAYNE

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Prepared by:



Wallace Roberts & Todd, LLC

with:

*Lisa H. Hammer
Horticultural Consultant*

*Sweeney & Associates
Irrigation, Design & Consulting*



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VILLAGE OF KEY BISCAINE

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Ron Oprzadek, Horticulturist

Office of the Village Clerk

Conchita H. Alvarez, CMC

Landscape Master Plan Committee

Craig S. Hardie
Cecile M. Sanchez
Reverend Charles Bud Schroeder

Landscape Master Plan Consultants

Wallace Roberts & Todd, LLC
Lisa Hammer, Horticultural Consultant
Sweeney & Associates, Irrigation Consultant





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1. PURPOSE

The Village of Key Biscayne (VKB) civic realm landscapes are vital to establishing a compelling and unique sense of place, and the degree of landscape management required to keep this environment in top, world-class condition cannot be underestimated. As a result, the Landscape Management Plan (LMP) is designed to establish a Village environment that can be successfully managed as a visually pleasing and environmentally sound landscape with a moderate-to-high level of maintenance needs.

Nevertheless, landscapes are dynamic environments where materials can become damaged or worn out, and plants may outgrow their usefulness. As a result, Village landscape management must have, at its basis, a commitment to skilled stewardship that includes sound and sustainable horticultural practices and hardscape maintenance.





2. IMPLEMENTATION

The recommendations proposed in this Landscape Management Plan (LMP) are extensive and diverse, from detailed maintenance schedules for turf lawns to streetscapes to gardenesque landscapes. Implementation of the LMP recommendations will result in immediate improvements as well as improvements achieved through sustained long-term implementation of identified best landscape management practices. The LMP has been designed as a series of guidelines that are meant to evolve as experience is gained through implementation over the coming years.

To ensure this continued refinement, periodic review and assessment of the plan's implementation should be undertaken to monitor progress towards the objectives, and to tailor the recommended practices as field experience dictates. Such reviews should be conducted by an outside consulting entity with experience in landscape design and management on both a quarterly and yearly basis, with the findings presented to the Village of Key Biscayne's Landscape Committee and Public Works Department. Quarterly reviews should occur to monitor the performance of the implementation schedule as well as operational aspects of the maintenance plan, while the annual reviews should be conducted to completely review and update the goals and recommendations of the LMP.

In project terms, a number of small, site-specific, landscape enhancement projects, such as cul-de-sacs and medians, can be implemented as part of on-going, routine maintenance. However, larger landscape improvements and management practices, such as the renovation of the Village Green, East End Lake Park and the Village Beach Park will be accomplished in segments and over an extended time-frame.



In an effort to create an understandable implementation strategy, the LMP has identified three broad categories of implementation, which includes recently completed and/or current in-process landscapes, as well as a variety of landscape focus areas that function as either a site-specific environment or as a landscape type—such as pocket and vista parks or street trees. The categories are:

- **Projects In-Progress**
- **LMP Early-Action Focus Areas**
- **LMP Long-Range Focus Areas**

Although the In-Process Projects and Focus Areas are not arranged in order of priority, immediate consideration should be given to those landscapes that create and contribute to community identity and help realize the 2020 Vision Plan goal of creating an “Island Paradise.” Of secondary priority should be the sequence of projects that improve neighborhood-focused parks, streetscapes and natural areas.

Other civic projects that are not covered in this report, such as the US Post Office can be accomplished as part of individual property improvements.

Projects In-Progress:

- Crandon Boulevard Improvements
- Fernwood Road Improvements
- Harbor Drive Improvements
- Library

Early-Action Focus Areas:

- Key Biscayne Community School
- Streets, Medians & Cul-de-sacs
- Pocket & Vista Parks
- Village Civic Center

Long-Range Focus Areas:

- Village Green
- East Enid Lake Park
- Village Beach Park



Views of the recently completed Crandon Boulevard



I Village Green
J East End Lake Park
K Village Beach Park





3. OPERATION GUIDELINES

Landscape Management:

The LMP maintenance levels have been classified as Schedule I, II and III (see Figure 3-1). The Schedule I maintenance program has the highest level of maintenance requirements. Schedule II has a high-to-moderate level of maintenance, while Schedule III has a moderate level that outlines a management plan for natural vegetation habitat areas within the Village.

The Village areas that require a ***Schedule I*** (highest) level of landscape maintenance include the Civic Center, Village Green, Village Beach Park, East Enid Drive Park, Library, Crandon Boulevard, and the Community School. These areas are of particular concern as they form the Village's civic landscape identity—its sense of place. Schedule I areas include the greatest diversity of lush Native and Florida Friendly plants, as well as specialized pedestrian zones with fixtures and furnishings. As a result, these areas shall require the greatest level of maintenance.

Schedule II (high to moderate) level of landscape maintenance should be implemented in all the remaining public realm designed landscapes that include pocket and vista parks, and community roadway medians, swales, and cul-de-sacs.

Schedule III (moderate) level of landscape maintenance should be implemented in all native plant community environments, and these areas require minimal maintenance focused primarily on the removal of invasive and non-habitat plant species.



View of Existing Village Green Tot-Lot



View of Existing Village Beach Park



The LMP does not recommend a low level of maintenance for any of the Village's civic realm landscapes, as that would be inconsistent with the 2020 Vision Plan and the goal to have a world-class, Ritz Carlton quality landscape.

In order to achieve this high standard, the LMP recommends that the VKB re-organize its landscape management / maintenance operations and establish a dedicated team of highly qualified maintenance professionals that are either an internal hire team or, an out-sourced consultant team. Based on a comparison of parks management of selected communities in Florida of comparable size and landscape management objectives, the average maintenance team is composed of a mix of full- and part-time personnel, with the former typically higher-skilled professionals, while the latter tend to be low-skilled laborers. The typical maintenance crews are made up of approximately one to six full-time staff augmented by nine to twenty-five part-time employees.

As the goal of the VKB is to establish a world-class landscape the LMP recommends that the management team be composed of full-time personnel, which will ensure that these professional develop a strong knowledge of the unique landscape of the Village. In addition, to ensure that the management team executes consistent with the LMP's guidelines, an independent horticulturist should be engaged to oversee and assess the maintenance team. To meet these goals, the LMP recommends the out-sourcing of both the horticulture position and the landscape management team at the following levels:

Out-Source Team (two separate contracts)

- 1 Part-time horticulturist, reporting to Landscape Committee/Public Works Director
- 1 Landscape management company contracted to perform all maintenance with a full-time dedicated 10-12 person team, including one experienced landscape team manager

Landscape Maintenance Operation Budget

The VKB currently spends approximately \$450,000 annually for landscape maintenance. However, many of the items currently covered within this budget are not typically considered landscape management and are therefore not included in the proposed LMP Schedule of Maintenance (see Figure 3-1) and the recommended landscape maintenance operation budget. Conversely, the VKB's annual Landscape Management Operating Budget will



vary depending on numerous factors, such as improvements to existing landscape and changing environmental conditions. Taking into consideration these changing factors, peer comparisons, and the goal of achieving a Ritz Carlton level landscape, the LMP recommends an annual budget dedicated to landscape management ranging from \$500,000 to \$650,000. It is important to recognize that this estimated budget range is calculated to cover only the items identified in this LMP and does not include either major capital improvements, or the creation of new open spaces.

TASK	SCHEDULE I Major Landscapes	SCHEDULE II Neighborhood Landscapes	SCHEDULE III Natural Areas
Trash Pick-Up and Hardscape Cleaning	Daily	Weekly	Monthly in Perimeter Areas
Irrigation System Checks and Repairs	Monthly	Bimonthly	N/A
Mowing	36 cuts per year	32 cuts per year	N/A
Edging and Trimming	Monthly	8 times per year	N/A
Shrub Pruning	Twice Monthly	Monthly	N/A
Mulching	Quarterly	Twice Annually	Year 1 After Clean-Up
Weeding	Twice Monthly	Monthly	N/A
Tree Pruning, Hardwoods	1 time each 2 to 3 years	1 time each 3 to 5 years	N/A
Tree Pruning, Palms	2 times per year	1 time per year	N/A
Fertilization	Quarterly	2 to 3 times per year	N/A
Pest Scouting and Treatment	Monthly	Quarterly	N/A
Invasive Exotic Removal - Year 1	Annually	Annually	Quarterly
Invasive Exotic Removal - Year 2	Annually	Annually	Twice Annually
Invasive Exotic Removal - After Year 3	Annually	Annually	1 Time Each 1 to 2 Years

Figure 3-1: LMP Maintenance Schedule





4. QUALITY ASSURANCE

Landscape quality assurance for the Village will be achieved through two coordinated efforts, which are:

- The quarterly and annual review/assessments of the landscape maintenance efforts, and;
- The adoption of sustainable design and development guidelines and the implementation of sound best maintenance practices.

Sustainability:

The Village of Key Biscayne will focus on environmental stewardship as the primary sustainability principle guiding public realm landscape design, development, and management. The Village will use the following approach to achieving village-wide environmental sustainability:

In support of the many local and global initiatives among communities, the VKB will seek to express the three components of sustainability—environmental stewardship, social equity, and economic stability—in the Village.

VKB will comply with all applicable environmental regulations and adopt green development standards.

VKB will use discretionary green development techniques that are relatively low-cost or have a short- to mid-term payback period.



VKB will closely evaluate techniques that could have a major environmental benefit but have exceptionally long payback periods, or high un-recoverable costs.

- All new and/or renovated (<50%) landscapes will be developed in accordance with the following guidelines for sustainable landscapes:

Parks

- Provide access to public gathering spaces in order to promote sense of community.
- Protect imperiled species and ecological communities by designing parks to shelter critical habitats.
- Parks should act as buffers and preserve existing wetlands and water bodies.
- Preserve existing tree canopy, native vegetation and pervious surfaces in parks.
- Restore native habitat using native plants and materials.
- Maintain and/or reduce stormwater runoff rates.
- Use park design to slow and treat stormwater flows.
- Provide direct and safe connections through parks for pedestrians and cyclists to local destinations to promote public health through increased physical activity.
- Promote the reuse of materials and resources by using salvaged, refurbished, or reused materials in new infrastructure such as sidewalks, roads, grading sub-base, paving, curbs, and sewers.
- Design and construct systems to capture and reuse greywater and stormwater.
- Reduce the amount of potable water consumed for irrigation purposes through native plant selection.
- Divert construction, demolition and land clearing debris from landfill disposal and redirect resources for recycling and reuse.
- Wherever possible, use materials that are manufactured, extracted, harvested or recovered within the region.
- Limit light pollution that can disrupt ecosystems and obscure views of stars: Use light fixtures that reduce light pollution by directing light towards the ground.
- All parks shall comply with federal, state and local requirements regarding handicap accessibility.

Streetscape

- Streetscapes should occupy existing rights-of-way (ROW).
- Streetscapes should afford safe, convenient and universal mobility for pedestrians and cyclists between destinations and especially to public transit facilities.



- Paved surfaces should be smooth, without the potential for the formation of bumps or cracks, and devoid of obstructions that could confuse or cause injury to persons with disabilities.
- All streetscapes shall comply with federal, state and local requirements regarding handicap accessibility.
- Bike racks should be provided as needed in convenient locations to encourage cycling.
- Where possible, streetscapes should help protect and improve adjacent open space areas, especially as it concerns stormwater and vegetation.
- Paving materials should be as porous as possible, including on-street parking bays.
- Rain gardens, bioswales and vegetated tree wells should be used to the extent possible to maximize the ability of the streetscape to retain and filter stormwater run-off (Figures 4-1, 4-2 & 4-3).
- Street trees should be irrigated long-term with street-generated run-off.
- Paving systems should have a high reflectance value to mitigate heat island effect, balanced with the need to control glare.
- Open grid-paving should be considered on low-use driveways and emergency access ways.
- Paved areas should be shaded to the extent possible.
- Street tree species should be selected and located for optimum provision of shade over hard-surface areas, including roadways (See street tree sizes, Figures 4-4 & 4-5).
- Structural soils should be used on sidewalks areas to optimize street tree growing conditions.
- Where possible, use cut-off type light fixtures.
- Avoid lighting trespass beyond ROW boundaries.
- Use greywater for irrigation where possible.
- Specify native xeric (drought tolerant) plants where possible.
- Limit the use of irrigated turf-lawn to designated use areas.
- Use energy efficient lighting, including photo-voltaic powered fixtures and long-lasting LED lights that reduce overall wattage and maintenance.
- Consider separate vehicular and pedestrian lighting systems, with the latter's lumen output timed and/or calibrated according to anticipated levels of pedestrian activity.
- Give preference to products with low embodied energy.
- Use ROW vegetation to help temper heat gain/loss on adjacent buildings through screening, shading and wind funneling.





- Provide clearly marked and conveniently located recycling containers for glass, papers and metals.
- Specify products that help reduce the demand for virgin materials.
- Specify materials and installation techniques that minimize life-cycle costs and maintenance.
- Specify products that 1) have a high content of recycled materials and/or 2) can be recycled through standard industrial processes.
- Specify materials and products that are extracted and manufactured within a 500-mile radius to the extent possible.

This category strongly suggests the use of high technology to achieve improvements in any of the above measures. It also suggests fusing the boundaries between public right-of-ways and building front yards, setbacks and building systems to achieve integrated green design benefits, such as the use of gray building water to irrigate plants.

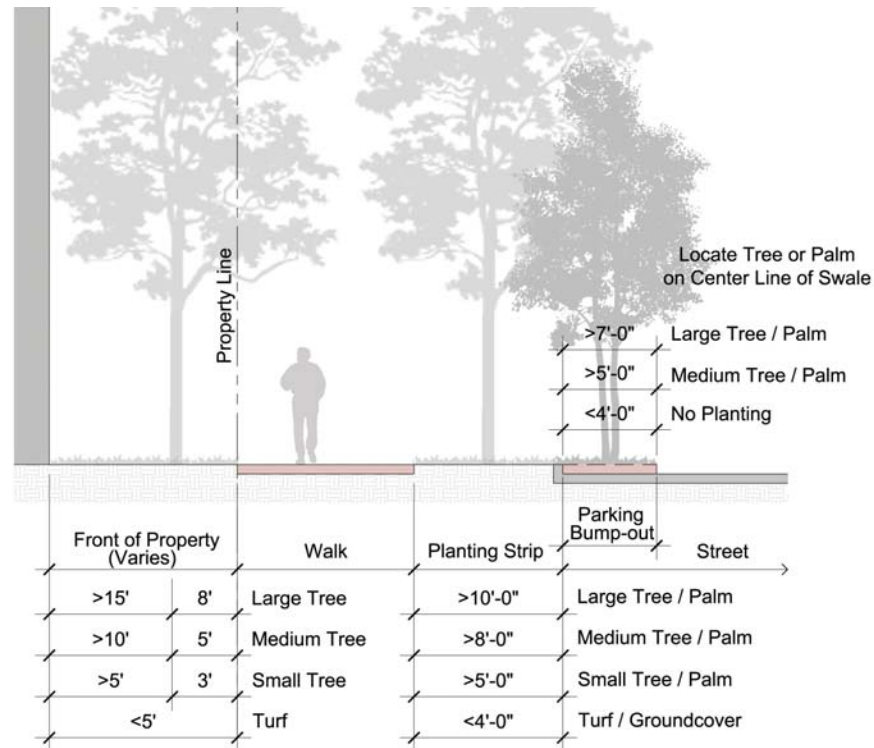


Figure 4-1 : Arterial Street Section



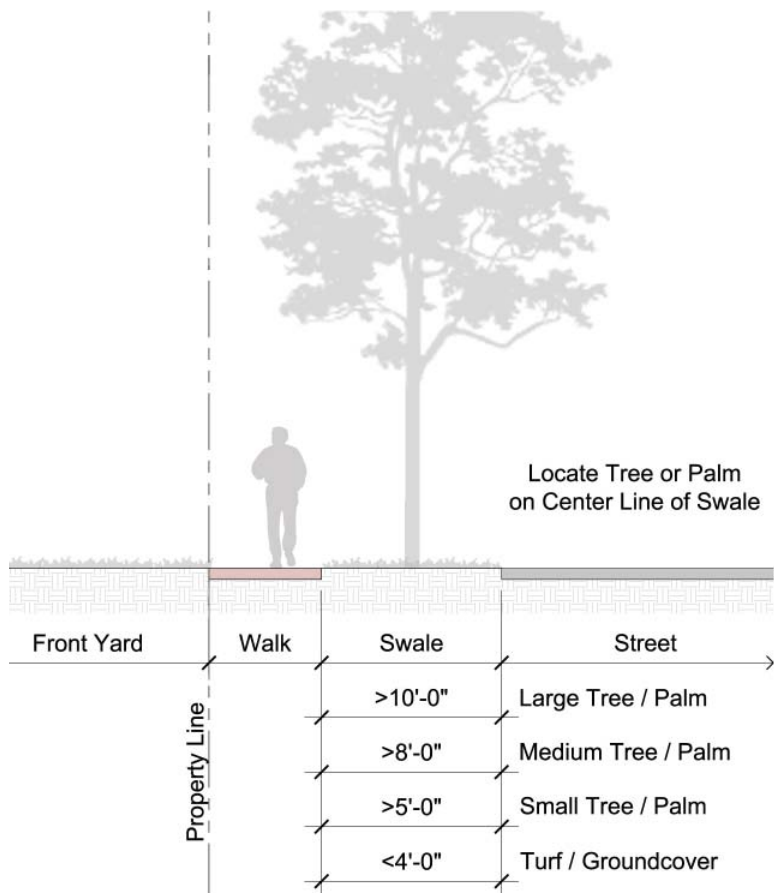


Figure 4-2 : Neighborhood Street With Sidewalk Section

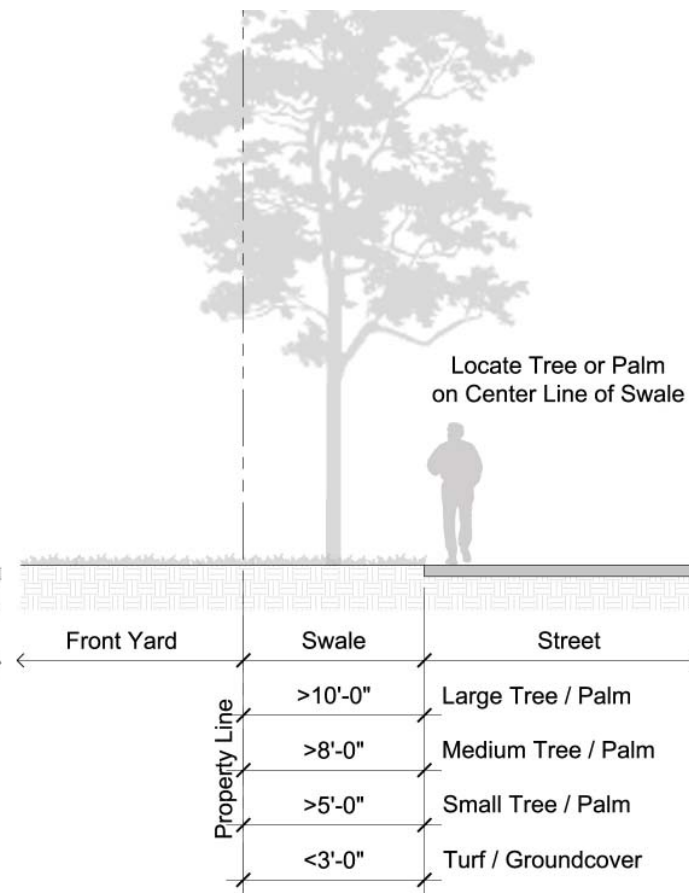


Figure 4-3: Neighborhood Street Section, With Out a Sidewalk



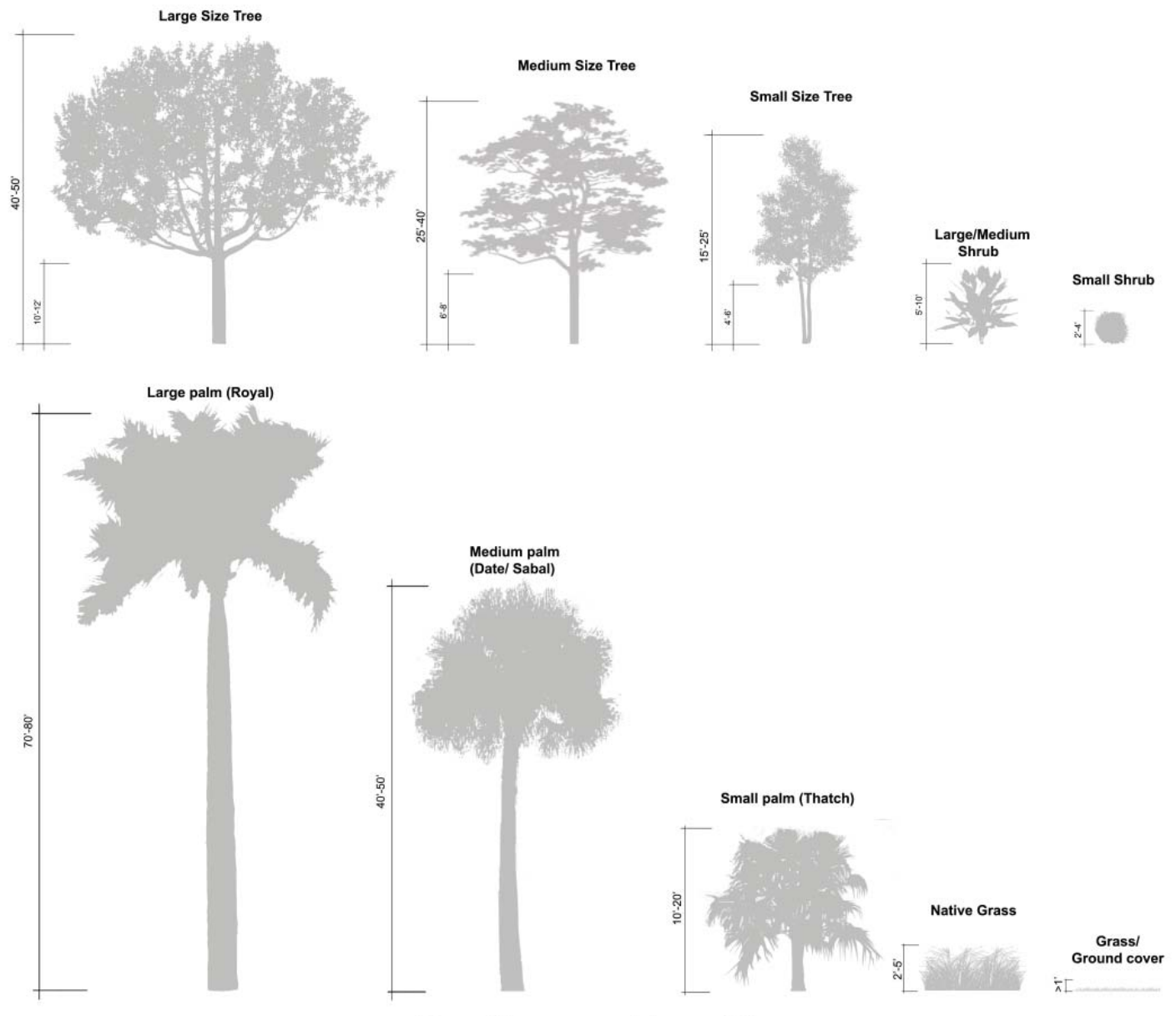


Figure 4-4: Tree Comparative Sizes



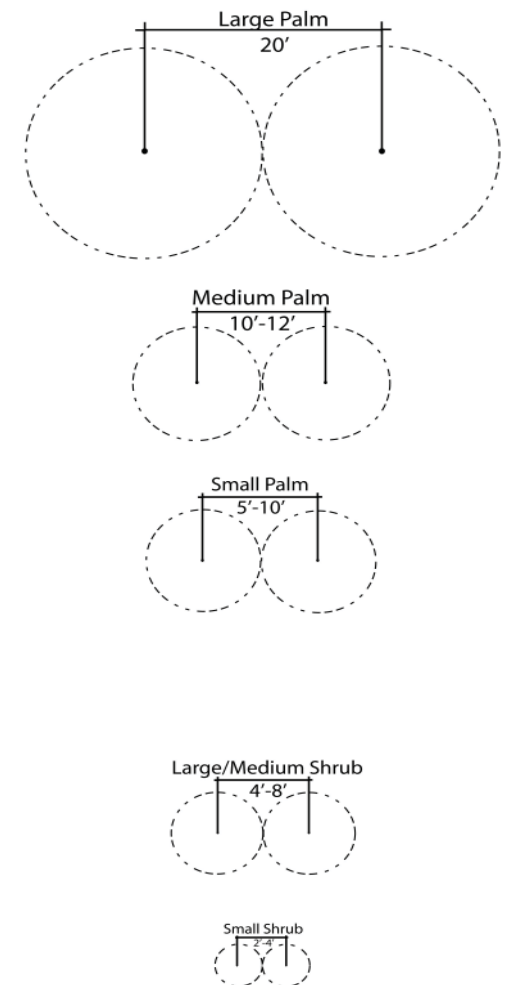
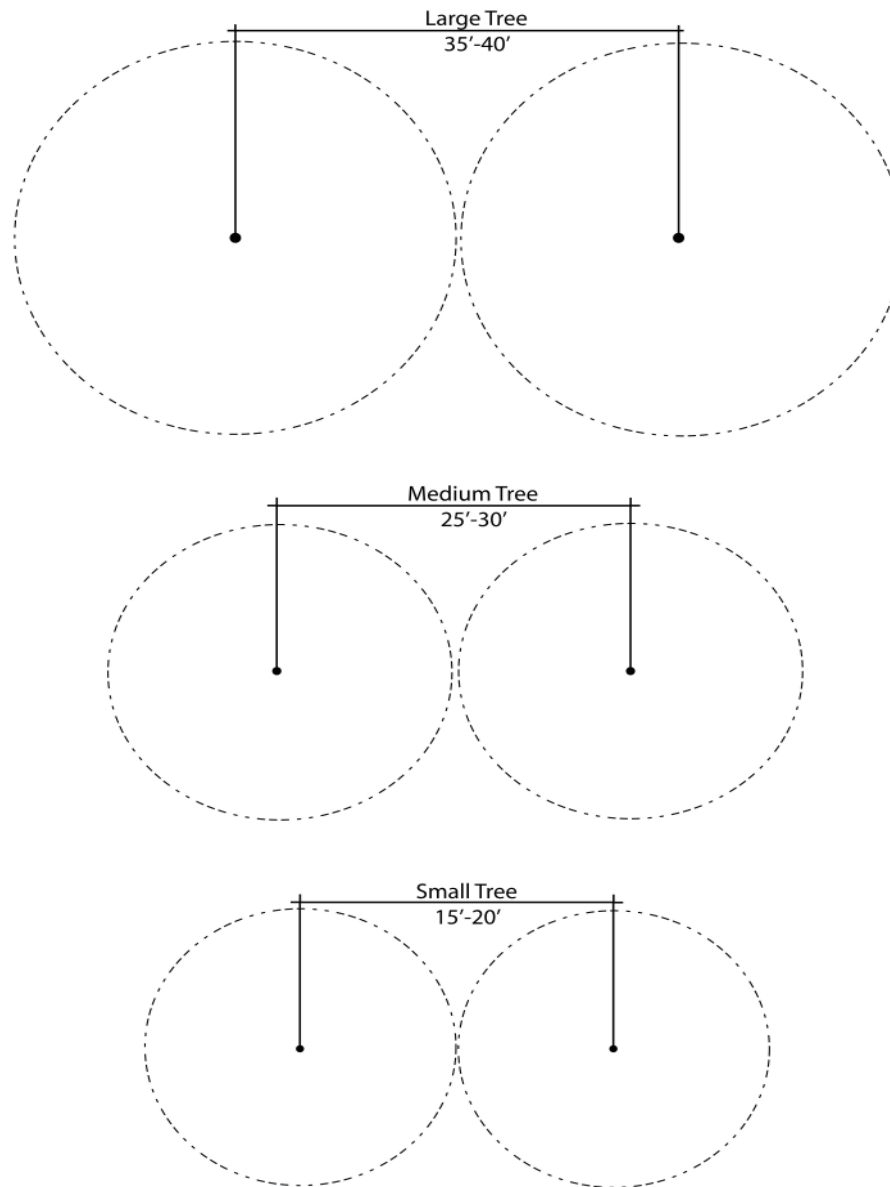


Figure 4-5: Typical Street-Tree Spacing



Swales and Public Rights-of-Way

Landscaping

One of the prominent public realm features of the VKB streetscapes are the ubiquitous use of roadside swales as stormwater temporary detention and conveyance features. Although they are most commonly located inside the street rights-of-way belonging to the VKB, many residents consider those areas extensions of their front yards. The Village of Key Biscayne code allows for plantings in these swales and rights-of-way under certain conditions outlined in Chapter 21, Article II, Sec. 21-10 through Sec. 21-15:

Landscape Materials may be installed or maintained in the Public Rights-of-Way subject to the following restrictions:

(a) For properties where the driveway(s) can accommodate three or more parked vehicles, an area three feet wide, parallel with and immediately adjacent to the edge of the paved roadway, shall be maintained as a step off clear zone. No Landscape Materials other than sod are permitted in the step off clear zone. For properties where the driveway(s) can accommodate less than three vehicles, an area six feet wide, parallel with and immediately adjacent to the edge of the paved roadway, shall be maintained as a clear zone. With the exception of Street Trees, no Landscape Materials other than sod are permitted in the clear zone. However, plantings with a height not to exceed two and one half feet may be maintained within a radius of 24 inches from the base of any Street Tree. Trees installed prior to the adoption of this chapter (“Existing Trees”) may be retained in the clear zone so long as the tree is not less than three feet from the paved roadway, the lowest limb is a minimum of six feet above the ground and they are not so closely situated so as to prevent pedestrians from stepping off of the paved roadway as vehicles pass by. Plantings with a height not to exceed 2 1/2 feet may also be maintained within a radius of 24 inches from the base of any Existing Tree that is allowed to remain pursuant to this provision.

(b) Except within a line-of-sight triangle, Landscape Materials with no height restriction may be maintained within the remainder of the Public Right-of-Way area.

(c) Line-of-Sight Triangles. There shall be maintained a Line-of-Sight Triangle which shall be an isosceles triangle with sides ten feet along the edge of the driveway and the

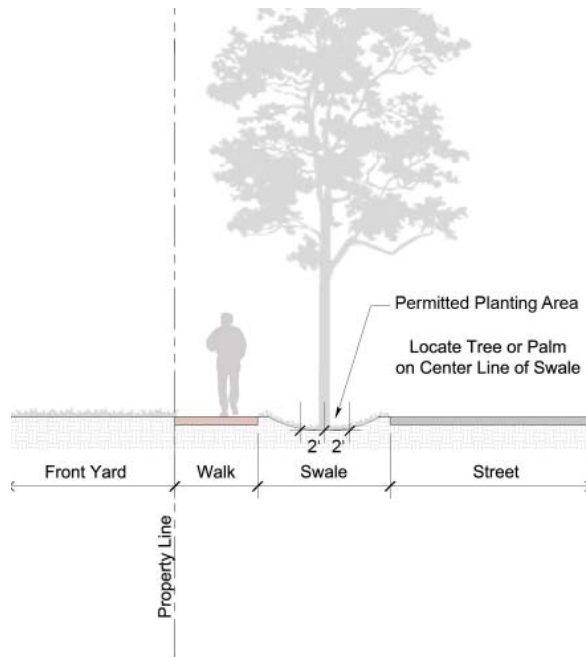


Figure 4-6 : Permitted Planting Area, Section



edge of the street. In cases where a sidewalk exists, an additional Line-of-Sight Triangle with sides five feet along the edge of the driveway and the edge of the sidewalk shall be maintained. Within the Line-of-Sight Triangle Landscape Materials shall be maintained at a height not to exceed 2 1/2 feet or with the lowest tree limb at least six feet above the ground.

(d) In cases where the Public Right-of-Way width is greater than 50 feet, the distances from the paved roadway shall be expanded proportionately.

(e) When a sidewalk exists or is installed, no Landscape Materials, with the exception of Street Trees, may be maintained between the edge of the paved roadway and the sidewalk. Where Street Trees have been installed, plantings with a height not to exceed 2 1/2 feet may be maintained within a radius of 24 inches from the base of the Street Tree.

(f) Landscape Materials shall be maintained in compliance with the requirements of the “Metropolitan Dade County Public Works Manual, Part 1 Standard Details” at all street intersections.

(g) The sloping of all Public Rights-of-Way shall be maintained in accordance with the “Dade County Department of Planning, Development and Regulation Landscape Manual”. (Ord. No. 99-4, § 1, 5-25-99)

A diagram explaining the spatial relationships of this ordinance can be found in Figures 4-6 & 4-7.

Following the requirements set forth in the ordinance, the landscape management plan further recommends to preserve the quality of the public realm adjacent to residential property, invasive exotics should not be permitted as plantings in swales and rights-of-way. Plantings installed by owners of residential properties can be any type of ground cover listed in the “Preliminary Suggested Plant Series for Swales” located in the Section 5 of this document. Furthermore, this plant list shall incorporate by reference every year the newly published “Florida Environmental Pest Plant Council’s Category I and Category II invasive plant list” and be reviewed and updated by the assigned Horticulturist on a yearly basis as deemed necessary.

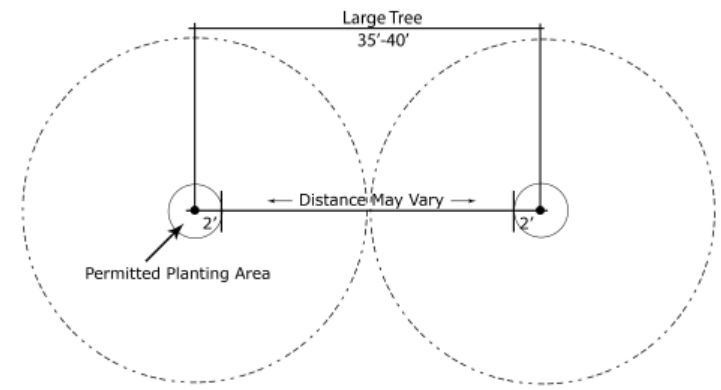


Figure 4-7 : Permitted Planting Area, Plan View



Best Maintenance Practice:

Landscape

1) Scope of Work–Landscape Maintenance

a) Irrigation

- Landscape Maintenance Contractor shall be responsible for the maintenance, repairs, and timing of the irrigation system. The system shall be regularly inspected to check for broken heads, lines, valves, timers, and water coverage patterns. Broken heads and lines, and water coverage adjustments shall be made by the Landscape Maintenance Contractor. Malfunctioning valves, pumps, or timers shall be reported to the Village for repair by a licensed irrigation contractor.

b) Mowing

- All turf areas shall be mowed with rotary mowers 1 time each 7 to 10 days between May 1 and October 31. The rest of the year it shall be mowed 1 time each 14 to 21 days, as needed to keep the grass from growing more than 1.5” above the cutting height. Total number of cuts per year shall be between 30 and 36, as per Maintenance Schedules for each area.
- Mowing height shall be no less than 3.0” for St. Augustine grass, as measured on a flat, paved surface. Mowing height in shaded areas shall be slightly higher.
- All debris and/or litter shall be removed from turf areas prior to mowing.
- Injuries to tree trunks, exposed roots, and shrub bases shall be avoided by either mowing at a greater height or by mowing around them and hand-trimming later.
- Mower blades shall be kept sharp at all times so as to prevent tearing of leaf blades.
- All grass clippings shall be removed from parking lots, driveways, sidewalks, and planter beds using blowers, vacuums, brooms and/or rakes. Clippings shall not be blown out into streets or adjacent areas.



c) Edging and Trimming

- All edges along bed lines, tree rings, parking lots, driveways, sidewalks, etc. shall be mechanically edged at least 1 time each 1 to 2 months.
- All turf around all sprinkler heads shall be trimmed so that it does not interfere with or intercept the output of water.
- The use of nylon cord trimmers (weed-eaters) around tree trunks or hedges shall not be permitted (tree rings and bed lines must be maintained); they may be used around sprinkler heads, fences, posts, and other non-living structures which shall not be damaged by such.
- All trimmings shall be removed from parking lots, driveways, sidewalks, and planter beds using blowers, vacuums, brooms, and/or rakes. Clippings shall not be blown out into streets or adjacent areas.
- All trimmings shall be collected daily and disposed of at authorized dumping or recycling sites.

d) Shrub Pruning

- All landscaped areas shall be inspected on a regular basis to ascertain whether any pruning and trimming is needed to maintain plants within their intended bounds, to remove dead or damaged plant parts including limbs, branches, palm fronds, stems, or flowers, and to keep plants from encroaching upon parking lots, driveways, sidewalks, streets, windows, signs, lighting, etc.
- Appropriate pruning tools (pruning clippers, loppers, and hand saws) shall be used and properly maintained with sharpened blades at all times. Machetes, breakage by hand, and climbing spikes shall not be permitted.
- All hedges shall be sheared using gas-powered shearing equipment to maintain the desired height and width. Hedges shall be allowed to produce new foliage and flowers in between shearing operations. The bottoms of the hedges shall be maintained slightly wider than the tops to allow for adequate sunlight penetration.





- One time per year, during the early summer months, all sheared hedges shall be pruned to reduce overall height by 4 to 6 inches below normal cutting height, so as to remove accumulations of woody twigs created by shearing. The hedges shall then be allowed to grow back up to the desired height, where they shall again be maintained.
- All massed shrub beds shall be pruned as needed to maintain plants within their intended bounds, prune off old flowers, clean out old leaves, and create a naturalistic mass effect. Plants shall not be individually shaped.
- All ground cover material shall be regularly pruned and cleaned as needed to remove any dead or damaged plant parts, including old leaves, flowers, and stems. Periodically, it may be necessary to thin or reduce the size of the plantings by removing sections of plants or clusters.
- All palms which are less than 15 feet in overall height shall be pruned as needed to remove brown fronds, coconuts, and inflorescences. Each individual frond shall be cut as close to the trunk as possible, removing the entire leaf base, including all spines. Thatch accumulations on trunks shall be regularly removed as it naturally loosens. Any palms which have spines on their fronds (i.e., pygmy date palms) and are located within 3 feet of a pedestrian area shall regularly have the spines hand-clipped from the bases of the fronds, or the entire frond shall be removed if it does not create an unbalanced crown.
- All clustering palms which are less than 15 feet in overall height shall be pruned as needed to remove brown fronds and inflorescences. Periodically (no more than one time per year), some thinning of the clusters may be required; approximately 1/4 to 1/3 of the total number of stems, evenly distributed throughout the cluster and at staggered heights, shall be cut at ground level and removed. Palms shall not be “cleaned” to remove all young stems.
- All hardwood trees which are less than 15 feet in overall height shall be pruned as needed to remove dead branches, or to raise or reduce crowns to prevent them from encroaching into pedestrian/vehicular areas, over windows, sidewalks, signs, etc. There shall be no other “cleaning”, “thinning”, or “raising” of tree crowns. All



other tree and palm pruning shall be the responsibility of a qualified arborist or tree crew.

- All clippings and debris, including fallen palm fronds and nuts, shall be collected daily and disposed of at authorized dumping or recycling sites.

e) Mulching

- All hedges, shrubs, planter beds, and free-standing palms and hardwood trees shall be mulched using naturally-colored, shredded cypress, eucalyptus, or heat-sterilized melaleuca mulch, Grade B or better, layered to and maintained at a depth of 1 to 2 inches at all times.
- All free-standing palms and shade trees shall have circular tree rings maintained uniformly at a distance of at least 18-inch radius (36-inch diameter) from the trunk, within which mulch shall be maintained.
- Mulched areas shall begin 2 to 4 inches from trunks or stems and continue out to completely fill in shrub beds and tree rings. Mulch shall not be allowed to cover crowns of shrub plants or accumulate against the trunks of trees and palms.

f) Weed Control

- Weeds shall be removed by hand on an on-going basis throughout the year in all landscaped areas, including the removal of weeds growing in thatch on palm trunks, fallen palm fruits, and tree/palm seedlings (“volunteers”) in hedges and shrub beds.
- All weeds in driveways, sidewalks, fence lines, or other hardscape areas shall be removed by hand or sprayed with Round-Up (Glyphosate) herbicide, once each 1 to 2 months or more often if needed to keep them under control.
- After adequate plant establishment, chemical pre- and post-emergent herbicides may be used on an as-needed basis in turf and shrub areas (see PEST CONTROL section).
- All debris shall be collected daily and disposed of at authorized dumping or recycling sites.



2) Scope of Work–Tree and Palm Pruning

- All shade trees and palms shall be pruned following the standards set forth in the American National Standard for Tree Care Operations , ANSI A-300 (Part 1)-2001 Pruning; (11 West 42 Street, New York, N.Y. 10036).
- Pruning practices including tree inspection, tools and equipment, and pruning cuts, shall be performed as outlined in the ANSI A-300 standards.
- Hardwood trees shall be pruned on a regular cycle, which shall be determined according to pruning objectives, tree species, tree age/size, tree condition, location, and usage. Schedule I trees shall be pruned one time each 2 to 3 years; Schedule II trees shall be pruned one time each 3 to 5 years.
- The pruning types to be implemented on hardwood trees shall be determined prior to each pruning cycle and shall consist of one or a combination of the following pruning types, as defined in the ANSI A-300 standards: crown cleaning, crown thinning, crown raising, and crown reduction.
- Trees with crowns which spread over roadways shall be pruned by canopy raising and/or canopy reduction such that a 15-foot vertical clearance is maintained.
- Trees with crowns which spread over sidewalks and other pedestrian areas shall be pruned by canopy raising and/or canopy reduction such that an 8-foot vertical clearance is maintained.
- Trees with crowns which spread over parking lots shall be pruned by canopy raising and/or canopy reduction such that a 12-foot vertical clearance is maintained.
- Trees adjacent to buildings, structures, power lines, fences, light posts, signs, or other fixtures shall have their crowns reduced to provide clearance from those structures or fixtures.
- Palms shall be pruned on a regular cycle; 2 times per year for Schedule I areas and 1



time per year in Schedule II areas.

- Palms shall be pruned such that all brown lower fronds and no more than 1 to 2 rows of live fronds are removed. Live healthy fronds which are initiated above the horizontal plane shall not be removed (maximum frond removal shall result in a “9 and 3” position, as it relates to the face of a clock). All inflorescences and fruits (including coconuts) shall be removed.
- Palm frond petioles shall be severed as close to the trunk as possible without causing damage to trunk tissues. All loose frond bases (“boots” and “thatch”) shall be removed. Those which do not readily abscise shall not be forced, torn, or shaven. All volunteer tree seedlings (ficus, bischofia, schefflera, etc.) shall be removed from the remaining “boots” or “thatch” by cutting or pulling.
- All debris shall be collected daily and disposed of at authorized dumping or recycling sites.

3) *Scope of Work–Fertilization*

a) Fertilizer Types

- The fertilizer to be used on all landscape material except for turfgrass and ferns, orchids, annuals, or other species sensitive to granular fertilizers, shall be in granular form and have a 2-1-3 or similar ratio of N, P, and K (i.e., “Palm Special” 8-4-12), with at least 50% of the nitrogen and potassium in the slow-release form, preferably sulfur-coated. Fertilizer mix shall also contain micronutrients, specifically magnesium (at least 3%), manganese (at least 1%), iron (at least 1%), and trace amounts (less than 1%) of boron, copper, and zinc.
- Turfgrass fertilizer shall be in granular form and have a 3-1-2, 4-1-3 (i.e., 12-6-8 or 16-4-8) or similar ratio of N, P, and K, with at least 50% of the nitrogen in the insoluble or slow-release form. Fertilizer mix shall also contain iron (at least 0.5%) and other micronutrients such as magnesium, manganese, and zinc.



- Fertilizer for ferns, orchids, annuals, or other species sensitive to granular fertilizer shall be a slow-release resin-coated product containing an N, P, and K ratio of 1-1-1 (i.e., Osmocote or Nutricote).
- b) Fertilizer Rates
- Turfgrass, hedges, shrubs, and ground covers shall be fertilized at the rate of 1.0 pounds of actual nitrogen per 1,000 square feet of area per application (13 pounds of an 8% nitrogen product or 6 pounds of a 16% nitrogen product per 1,000 square feet of area).
 - All free-standing palms and hardwood trees shall receive 1 to 8 pounds of the product recommended above, as per individual tree size (1 to 3 pounds each for small trees/palms; 3 to 5 pounds for each of the mid-size trees/palms; 5 to 8 pounds for large trees/palms).
 - Resin-coated fertilizer shall be applied at label rates as specified for the intended plant species.
- c) Application Methods
- Fertilizer for all plant material except turfgrass shall be broadcast by hand on the ground or in the planters underneath plant canopies prior to mulch applications. Fertilizer application shall begin at 2 to 6 inches away from trunks/crowns of trees and shrubs and continue out to the dripline of the plants. Granular fertilizer shall not be allowed to accumulate on any plant leaves, in plant crowns, or at leaf bases.
 - Turfgrass fertilizer shall be applied with a rotary spreader after dew and irrigation water has dried from the leaves.
 - Fertilizer for ferns, orchids, annuals or other species sensitive to granular fertilizer shall be broadcast on the soil surface beneath the plants.
 - Some overlap in fertilizer application can be expected in those areas which contain combinations of turf, shrubs, trees, and palms. Contractor shall be responsible for exercising judgment in reducing absolute rates of application where significant overlap occurs.



- All excess fertilizer shall be swept, blown, vacuumed, or hosed off of parking lots, driveways, sidewalks, etc., immediately after application, so as to avoid staining.
- Irrigation shall be set to run through one complete cycle immediately after granular fertilizer application.

4) Scope of Work–Pest/Disease Control

a) General Practices

- Pest control shall be implemented on an as-needed basis only as part of an Integrated Pest Management (IPM) program. Contractor shall inspect all areas of the landscape on a regular basis for early detection of actual or potential pest and/or disease infestations which may require treatment.
- Contractor shall accurately identify any pest, disease, or weed species and determine whether or not chemical treatment is required. If so, it shall be treated with the most appropriate selective pesticide following all pesticide label directions. All pesticides are to be applied in a professional manner in accordance with all state and local laws pertaining to the handling and usage of hazardous materials.

b) Turf Grass Pests/Diseases

- The most common potential pests of St. Augustine turfgrass include chinch bugs, sod webworms, and grubworms, all of which can usually be effectively controlled with readily available pesticide products. Repeat applications shall be made at the recommended rates and frequencies, as needed to obtain complete pest control.
- Fire ant control in turfgrass and shrub areas may be necessary as often as 1 time per month, using fire ant baits, broadcast in the vicinity of, but not on top of, each nest.
- Fungicide treatments for turfgrass shall be provided on an as-needed basis. Product selection, application rates, and frequencies shall be determined after diagnosis, and repeat applications shall be made at the recommended rates and frequencies, as needed to obtain complete disease control.



- Pre-emergent weed treatment in St. Augustine turf areas using Atrazine shall be provided in the fall months when weather conditions (reduced temperatures) permit. Follow-up post-emergent treatments using Atrazine or another approved product for broadleaf weed control in St. Augustine grass shall be made as needed.
 - Pre- and post-emergent turf weed control treatments for grasses and sedges shall be provided on an as-needed basis, using the most appropriate products, as directed on product labels.
- c) Trees, Palm, and Shrub Pests/Diseases
- Common pests of shrubs, such as insects and mites, shall be properly identified and treated with the most appropriate pesticide following all label directions. Follow-up treatments shall be provided as needed to completely control the infestations.
 - Snail bait shall be broadcast in shrub beds or sprayed on the foliage of susceptible plants (mostly foliage plants) on an as-needed basis.
 - Fungicide treatments shall be provided on an as-needed basis. Product selection, application rates, and frequencies must be determined after diagnosis.
 - Pre-emergent weed treatment in established shrub beds using Ronstar (Oxadiazon) or Surflan (Oryzalin) or a similar material may be used 1 to 2 times per year during the summer and fall months to control heavy seed-germinated weed infestations. These products shall be applied according to label directions immediately following mechanical weed control.
 - Round-Up (Glyphosate) herbicide may be used for post-emergent weed control in shrub beds, driveways, sidewalks, or other hardscape areas.

5) Scope of Work–Natural Forest Areas Management (Florida Native Communities)

- a) Natural forest areas will require annual control of invasive exotic species.
- All invasive exotic species shall be cut and dug out by hand, and/or treated with approved herbicides.



- Grassy weeds shall be cut to ground level then allowed to resprout to a height of six to eight inches. The new growth shall then be sprayed with Round-Up (Glyphosate) at the label rates. Repeat treatments may be required.
- Woody weed species, including undesirable tree species, shall be treated with Garlon (Triclopyr) herbicide, mixed at label rates with the proper surfactant or carrier, and applied as a basal stem treatment.



Irrigation Maintenance

The following are the proposed irrigation design and maintenance guidelines:

- All equipment should be standardized
- A central control system, with daily reporting, should be implemented to facilitate proper water management
- Installation standards should be set and utilized throughout the Village public realm landscape
- Maintenance standards and schedule should be implemented

Irrigation System and Equipment Recommendations:

- a) Controllers
 - Larger landscape and turf areas such as parks and boulevard medians, should be fitted with the Rainbird ESP controllers that can be upgraded to accept programming from a central control system such as the Rainbird Maxi-Com system. Electricity will be required for the controller location in these larger spaces.
 - Keep the Rainbird TBOS in small isolated landscape areas, such as round-about circles. Do not use the TBOS system unless it is impossible to acquire electrical power within the landscape space.
 - Install all control wire in UL approved gray conduit to prevent damage to the wire. This will also assist in any modification that may be required in the future as landscape areas may change.
 - Program controllers so that plant material will receive sufficient water for optimum growth. Do not waste water by allowing sprinklers to run past the time required to properly water landscape material.



b) Irrigation Heads

- Utilize 6" pop-up sprinklers as a minimum. Use low trajectory nozzles where ever possible, to prevent wind drifting and over spray onto paved areas.
- Use 6" and 12" pop-ups on perimeters of landscape areas as well as edges where landscape is next to pavement or walkways.
- Use spray heads in and around ground cover and shrub plantings. Where areas are turf and spaces are open use 6" pop-up rotor heads.
- On interior planting, use 6" pop-up spray heads. This will help prevent damage to irrigation equipment caused by landscape maintenance personnel. Tighten up sprinkler spacing as needed. This depends greatly on the type of landscape material being used.
 - In planting areas (ground cover and shrub) next to buildings or structures, use shrub heads on risers. Establish nozzle height 2" above height that the plant material is going to be maintained. All risers shall be painted with waterproof black paint.
 - Never use risers next to pavement or pedestrian walkways.
 - Equipment should be standardized for maintenance purposes. We suggest that you use Rainbird 1806 spray heads and Hunter rotor heads.
 - Any irrigation heads that are installed in a turf area should be valved with other turf areas. Conversely, any heads that are installed in shrub areas should be valved with other shrub areas.

c) Pipe

- Main line pipe should be PVC class 315 or Sch. 40 solvent weld. All laterals should be Class 200 or Sch. 40 PVC. Trenches should have a bed of sand under the PVC pipe. There should be no rock larger than ½ inch in contact with the PVC.
- All pipe under pavement should be sleeved in Sch. 40 PVC pipe.



- Any pipe above ground shall be copper, bronze or galvanized. If galvanized pipe is used, then coat the threads with galvanized marine paint following assembly.
- d) Pumps
- Any large area rotors such as those used on play fields will require booster pumps to supply the pressure necessary for proper distribution. Those booster pumps will need to be individually designed to fit the system that is being designed for that particular area.
- e) Backflow Protection
- A PVB (Pressure Vacuum Breaker) can be used downstream of the irrigation meter, if used in conjunction with a master control valve. This item may be changed as dictated by the South Florida Building Code, or Dade County Plumbing Code. This Item must be in compliance with the prevailing code.
- f) System Design
- All irrigation plans should be reviewed by a credentialed individual who is familiar with the design of irrigation systems. That someone should be a person who holds credentials as an engineer, a landscape architect or an irrigation consultant who has been certified by the IA (Irrigation Association). All irrigation design drawings should be signed and sealed by the appropriate design professional.

Irrigation Maintenance:

- a) Coverage
- All landscape areas should have the sprinklers turned on and evaluated at least twice a month (bi-weekly). Coverage should be checked to ensure that (head-to-head) coverage is achieved. Check for missing or broken heads. Replace seals on heads that have leaking stem seals.
 - Perimeter of the landscape areas should be 6” or 12” pop-up spray heads.
 - On the interior of the landscape areas, shrub heads on risers should be utilized. The nozzle height should be approximately 2” above the height that the landscape material



is maintained. This can be adjusted as the material grows or if maintenance practices change.

- Never use shrub heads on risers next to paved areas curbs or pedestrian walkways.
- b) Equipment:
 - i) Controllers
 - In many of the small areas of the streetscape, round-a-bout circles, etc. the Rainbird TBOS battery operated control modules have been installed. It is imperative that the control modules are serviced and the battery changed as per manufacturer's recommendations. Verify that the rain shut off device is operating correctly.
 - Larger landscape spaces, such as parks and blvd. medians, which have time clock controllers, should have the battery backup changed as recommended by the manufacturer. Grounding connections must be checked and the grounding resistance verified to ensure that it is still within manufacturer's recommendations. Verify that the rain shut off device is operating correctly.
 - Program should be checked to ensure that the plant material is receiving adequate water, and ensure that the system is operating within prescribed time limits as prescribed by So. Fla. Water Management.
 - ii) Valves, Heads and Pipe
 - The following items should be checked on a bi-weekly basis. One technician with maintenance equipment and one assistant should be sufficient to perform the routine inspections and service these components for the Village.
 - Valve boxes must be leveled and set so that the top is flush with the finished grade. Soil that has eroded around all equipment must be replaced and fine graded. Re-sod as necessary to present finished appearance.
 - PVC pipe that has not previously been installed at the proper 12" depth,



or has been pulled upward, out of the ground, should be reinstalled at the proper depth. This helps give better support to the shrub heads and prevents damage to the pipe system. Any pipe that is above ground should be copper, bronze or at a minimum, galvanized pipe with the exposed pipe threads coated with galvanized marine paint.

- Sprinkler heads shall be maintained flush with finished grade and must be set absolutely vertical so that the irrigation coverage remains uniform. This will also prevent damage to sprinkler heads from mowers.
- Control wire connection should be checked and connections waterproofed with the use of DBY-6 waterproof wire connectors.



5. PLANT SCHEDULE

Appropriate plant selections for all public realm landscapes shall be made from the following plant schedule to ensure a consistent, well-adapted and easily maintained palette of plant materials throughout the Village. The plant schedule identifies critical plant requirements, typical habit and special characteristics. In addition, the schedule identifies preferred plant options for each LMP focus area and landscape type.

The plant schedule is categorized according to generally accepted plant types, such as large hardwood canopy trees, palms, shrubs and ground covers.





Exceptional Performer	VILLAGE OF KEY BISCAIYNE LANDSCAPE MASTER PLAN												LANDSCAPE TYPES										
	PRELIMINARY SUGGESTED PLANT SPECIES												Village Green		Village Civic Center				Pocket & Vista Parks			Medians & Cul-de-sacs	
													Village Green	Special Garden/Pond Area	Sun	Shade	Community School	Village Beach Park	Sun	Shade	Streetscapes	Sun	Shade
LARGE HARDWOOD TREE PLANT SCHEDULE																							
PLANT SPECIES		PLANT DATA																					
Common Name	Botanical Name	Native	Drought Tolerance	Salt Tolerance	Light Requirement	Growth Rate	Mature Size	Flowering Season	Flower	Fragrance	Plant Type	Additional Characteristics	1	2	3	4	5	6	7	8	9	10	11
*	Verawood	Bulnesia arborea	No	High	Low	High	Medium	30'	Sp, S, F	Yellow-orange	Insignificant	Evergreen											
	Gumbo Limbo	Bursera simaruba	Yes	High	High	Medium	Fast	40' x 35'	Sp	Green	Insignificant	Semi-Deciduous	Attractive Bark										
	Golden Shower Tree	Cassia fistula	No	Medium	Medium	High	Fast	35'	S	Yellow	Insignificant	Deciduous											
	Floss Silk Tree	Chorisia speciosa	No	High	Medium	High	Fast	45'	F	Pink	Insignificant	Deciduous	Spiny										
	Satinleaf	Chrysophyllum oliviforme	Yes	High	Medium	High	Slow	30' x 20'	F	Yellow	Insignificant	Evergreen											
*	Autograph Tree	Clusia rosea	No	High	High	High	Slow	30' x 25'	S	Pink-White	Insignificant	Evergreen	(Potential) Aerial Roots										
*	Seagrape	Coccoloba uvifera	Yes	High	High	Medium	Medium	30' x 25'	S	White	Insignificant	Evergreen	Attractive Bark, Fruit										
*	Buttonwood, Silver	Conocarpus erectus var. sericeus	Yes	High	High	High	Medium	35' x 25'	Sp, S, F, W	White	Insignificant	Evergreen	Silver Foliage										
*	Buttonwood, Green	Conocarpus erectus	Yes	High	High	High	Medium	35' x 25'	Sp, S, F, W	White	Insignificant	Evergreen											
	Royal Poinciana	Delonix regia	No	High	Medium	High	Fast	40' x 50'	Sp,S	Red-Oragne	Insignificant	Deciduous											
	Coral Tree	Erythrina variegata var. orientalis	No	High	Medium	High	Fast	60'	Sp	Red	Insignificant	Deciduous	Spiny										
*	Short-Leaf Fig	Ficus citrifolia	Yes	High	Medium	High	Sfast	45'	Na	Na	Na	Evergreen											
	Blolly	Guapira discolor	Yes	High	High	High	Medium	30' x 40'	Sp, S	Green-Yellow	Insignificant	Evergreen	Attractive Bark										
	Wild Tamarind	Lysiloma latisiliquum	Yes	High	High	High	Medium	50' x 40'	Sp, S	White	Strong	Evergreen											
*	Screw Pine	Pandanus utilis	No	High	High	High	Slow	25'	Sp,S,F,W	Yellow	Insignificant	Evergreen	Specimen										
	Jamaica Dogwood	Piscidia piscipula	Yes	High	High	Medium	Fast	45' x 25'	Sp	Purple-White	Mild	Deciduous											
*	Live Oak	Quercus virginiana	Yes	High	High	High	Medium	60' x 40'	Sp	Green	Insignificant	Evergreen											
	Mastic	Sideroxylon foetidissimum	Yes	High	Medium	Medium	Medium	45' x 30'	Sp, S, F, W	Yellow-Green	Medium	Evergreen											
	Paradise Tree	Simarouba glauca	Yes	High	Medium	Medium	Medium	50' x 30'	Sp	Yellow	Insignificant	Evergreen											
	Mahogany	Swietenia mahagoni	Yes	High	Medium	Medium-High	Fast	50' x 40'	Sp	Green-Yellow	Insignificant	Evergreen											
	Pink Trumpet Tree	Tabebuia heterophylla	No	High	Medium	High	Medium	50' x 40'	Sp	Pink-Purple	Insignificant	Evergreen											
	Cypress, Bald	Taxodium distichum	Yes	High	Medium	Medium-High	Medium-Fast	80' x 25'	Sp	Na	Na	Deciduous Conifer											



LARGE HARDWOOD TREE PLANT SCHEDULE



VILLAGE OF KEY BISCAIYNE LANDSCAPE MASTER PLAN PRELIMINARY SUGGESTED PLANT SPECIES SMALL HARDWOOD TREE PLANT SCHEDULE													LANDSCAPE TYPES										
													Village Green		Village Civic Center				Pocket & Vista Parks			Medians & Cul-de-sacs	
													Village Green	Special Garden/Pond Area	Sun	Shade	Community School	Village Beach Park	Sun	Shade	Streetscapes	Sun	Shade
PLANT SPECIES		PLANT DATA											1	2	3	4	5	6	7	8	9	10	11
Common Name	Botanical Name	Native	Drought Tolerance	Salt Tolerance	Light Requirement	Growth Rate	Mature Size	Flowering Season	Flower	Fragrance	Plant Type	Additional Characteristics											
Cinnecord	Acacia choriophylla	No	High	High	High	Medium	15' x 15'	S	Yellow	Insignificant	Evergreen												
Torchwood	Amyris elemifera	Yes	High	Medium	Medium-High	Medium	15' x 10'	F	White	Strong	Evergreen												
Bahama Strongbark	Bourreria ovata	Yes	High	Medium	Medium-High	Medium	20' x 15'	Sp, S, F, W	White	Medium	Evergreen	Attractive Bark											
Dwarf Poinciana	Caesalpinia pulcherrima	No	High	Medium	High	Fast	15' x 10'	Sp, S, F	Orange-Yellow	Mild	Evergreen												
Spicewood	Calyptranthes pallens	Yes	High	Medium	Medium	Slow	15' x 10'	Sp, S, F, W	White	Medium	Evergreen												
Wild Cinnamon	Canella winterana	Yes	High	High	High	Slow	25' x 20'	Sp, S, F	White-Purple	Mild	Evergreen	Attractive Bark											
Fiddlewood	Citharexylum spinosum	Yes	High	Medium	Medium	Fast	20' x 15'	Sp, S, F	White	Medium	Evergreen												
Pigeon Plum	Coccoloba diversifolia	Yes	High	High	Medium-High	Fast	25' x 20'	Sp	White	Insignificant	Evergreen	Attractive Bark											
Geiger Tree	Cordia sebestena	Yes	High	High	Medium	Medium	25' x 20'	Sp, S, F, W	Orange	Insignificant	Evergreen	Beetles											
Black Torch	Erithalis fruticosa	Yes	High	High	Medium-High	Medium	8'	Sp, S, F, W	White	Insignificant	Evergreen												
White Stopper	Eugenia axillaris	Yes	High	High	Medium-High	Medium	25' x 15'	Sp, S	White	Mild	Evergreen												
Spanish Stopper	Eugenia foetida	Yes	High	High	Medium	Medium	15' x 15'	S	White	Mild	Evergreen												
Red Stopper	Eugenia rhombea	Yes	High	Medium	Medium	Slow	20' x 10'	Sp, S, F, W	White	Insignificant	Evergreen												
Japanese Fern Tree	Filicium decipiens	No			Medium-High		20-30'				Evergreen												
Lignum Vitae	Guaiacum sanctum	Yes	High	High	Medium	Slow	15' x 15'	Sp, S, F, W	Blue	Insignificant	Evergreen												
Peregrina	Jatropha integerrima	No	High	Medium	High	Medium	8'	Sp, S, F, W	Red	Insignificant	Evergreen												
Crape Myrtle	Lagerstroemia indica	No	High	Medium	High	Medium	25' x 15'	Sp, S	Many Colors	Mild	Deciduous	Attractive Bark											
Japanese Privet	Ligustrum japonicum	No	High	Medium	Medium-High	Medium	12'	Sp	White	Medium	Evergreen												
Simpson's Stopper	Myrcianthes fragrans	Yes	High	High	Medium-High	Slow	25' x 20'	Sp, S, F, W	White	High	Evergreen	Attractive Bark											
Frangipani	Plumeria spp.	No	High	Medium	Medium	Slow	20' x 20'	Sp, S	Red - White	High	Deciduous												
Yellow Elder	Tecoma stans	No	High	Medium	High	Fast	25' x 15'	Sp, S, F, W	Yellow	Insignificant	Evergreen												
Satinwood	Zanthoxylum flavum	Yes	High	Medium	Medium	Medium	20' x 10'	S	Green-White	Insignificant	Deciduous	Hard to Find											



SMALL HARDWOOD TREE PLANT SCHEDULE



VILLAGE OF KEY BISCAIYNE LANDSCAPE MASTER PLAN													LANDSCAPE TYPES										
													Village Green		Village Civic Center				Pocket & Vista Parks			Medians & Cul-de-sacs	
													Village Green	Special Garden/Pond Area	Sun	Shade	Community School	Village Beach Park	Sun	Shade	Streetscapes	Sun	Shade
PRELIMINARY SUGGESTED PLANT SPECIES																							
PALM & PALM-LIKE PLANT SCHEDULE																							
PLANT SPECIES			PLANT DATA																				
Common Name	Botanical Name	Native	Drought Tolerance	Salt Tolerance	Light Requirement	Growth Rate	Mature Size	Leaf Type	Foliage Color	Habit	Fruit	Additional Characteristics	1	2	3	4	5	6	7	8	9	10	11
King Alexander Palm	<i>Archontophoenix alexandrae</i>	No	High	Low	Medium-High	Medium	40'	Pinnately Compound	Green	Solitary	Red												
Malayan Coconut Palm	<i>Cocos nucifera</i> 'Malayan'	No	High	High	High	Medium	40'	Pinnately Compound	Green	Solitary	Green to Brown												
Silver Palm	<i>Coccothrinax argentata</i>	Yes	High	High	Medium-High	Slow	15'	Palmate	Green above-Silver below	Solitary	Black												
Areca palm	<i>Dypsis lutescens</i>	No	Medium	Medium	Medium-High	Fast	25'	Pinnately Compound	Green with Yellow	Clustering	Orange												
Bottle Palm	<i>Hyophorbe lagenicaulis</i>	No	High	High	Medium	Slow	10'	Pinnately Compound	Green	Solitary	Green to Black	Specimen											
Spindle Palm	<i>Hyophorbe verschaffeltii</i>	No	High	High	High	Slow	20'	Pinnately Compound	Green	Solitary	Orange to Red	Specimen											
Lantan Palm, Blue	<i>Latania loddigesii</i>	No	High	Medium	High	Slow	30'	Palmate	Blue-green	Solitary	Brownish-Green												
Lantan Palm, Red	<i>Latania lontaroides</i>	No	High	Medium	High	Slow	30'	Palmate	Gray-Green / Red Margins	Solitary	Brownish-Green												
Chinese Fan Palm	<i>Livistona chinensis</i>	No	Medium	Low	High	Medium	35'	Pinnately Compound	Green	Solitary	Blue to Grey												
Canary Island Date Palm	<i>Phoenix canariensis</i>	No	High	Medium	Medium-High	Slow	40'	Pinnately Compound	Green	Solitary	Orange												
Medjool Date Palm	<i>Phoenix dactylifera</i> 'Medjool'	No	High	High	High	Slow	70'	Pinnately Compound	Green	Solitary	Orange to Red												
Senegal Date Palm	<i>Phoenix reclinata</i>	No	High	Medium	High	Medium	30'	Pinnately Compound	Dark Green	Clustering	Reddish-Brown												
Cliff Date Palm	<i>Phoenix rupicola</i>	No	High	Medium	High	Slow	25'	Pinnately Compound	Green	Solitary	Purplish-Red												
Wild Date Palm	<i>Phoenix sylvestris</i>	No	High	Medium	High	Slow	50'	Pinnately Compound	Silver Green	Solitary	Red-Brown												
Buccaneer Palm	<i>Pseudophoenix sargentii</i>	Yes	High	High	Medium-High	Slow	10'	Pinnately Compound	Blue-Green	Solitary	Red Clusters												
Solitaire Palm	<i>Ptychosperma elegans</i>	No	High	Low	Medium-High	Medium	20'	Pinnately Compound	Green	Solitary	Red												
Macarthur Palm	<i>Ptychosperma macarthurii</i>	No	High	Low	Medium-High	Medium	25'	Pinnately Compound	Green	Solitary	Red												
Royal Palms	<i>Roystonea regia</i>	Yes	Medium-Low	Medium	High	Medium	80'	Pinnately Compound	Deep Green	Solitary	Purple												
Cabbage Palm	<i>Sabal palmetto</i>	Yes	High	High	Medium-High	Slow	40'	Costapalmate	Dull Green	Solitary	Black												
Bird of Paradise, White	<i>Strelitzia nicotai</i>	No	High	Medium	Medium-High	Slow	20'	Simple	Green	Clumping	Na	Needs shelter/shade											
Key Thatch Palm	<i>Thrinax morrisii</i>	Yes	High	High	Medium-High	Medium	20'	Palmate	Green above-Silver below	Solitary	White												
Florida Thatch Palm	<i>Thrinax radiata</i>	Yes	High	High	Medium-High	Slow	20'	Palmate	Green w/ Yellow Ribs	Solitary	White												
Veitchia spp.	<i>Veitchia joannis</i>	No	High	Medium	Medium-High	Fast	60'	Pinnately Compound	Green	Solitary		resistant to lethal yellowing											
	<i>Veitchia mcdanielsii</i>	No	High	Medium	Medium-High	Fast	60'	Pinnately Compound	Green	Solitary		resistant to lethal yellowing											
	<i>Veitchia vinini</i>	No	High	Medium	Medium-High	Fast	50'	Pinnately Compound	Green	Solitary		resistant to lethal yellowing											
Washington Palm	<i>Washingtonia robusta</i>	No	High	Medium	High	Medium	70'	Costapalmate	Green	Solitary	Brownish-Black												



PALM & PALM-LIKE PLANT SCHEDULE



VILLAGE OF KEY BISCAYNE LANDSCAPE MASTER PLAN
PRELIMINARY SUGGESTED PLANT SPECIES

WOODY & PALM-LIKE SHRUB PLANT SCHEDULE

VILLAGE OF KEY BISCAYNE LANDSCAPE MASTER PLAN PRELIMINARY SUGGESTED PLANT SPECIES														Village Green		Village Civic Center				Pocket & Vista Parks			Medians & Cul-de-sacs	
														Village Green	Special Garden/Pond Area	Sun	Shade	Community School	Village Beach Park	Sun	Shade	Streetscapes	Sun	Shade
PLANT SPECIES		PLANT DATA												1	2	3	4	5	6	7	8	9	10	11
Common Name	Botanical Name	Native	Drought Tolerance	Salt Tolerance	Light Requirement	Growth Rate	Mature Size	Flowering Season	Flower	Fragrance	Plant Type	Additional Characteristics												
Shell Ginger	<i>Alpinia zerumbet</i>	No	Medium	Medium	Medium-High	Fast	8'	S, F, W	White-Tellow	Insignificant	Evergreen													
* Variegated Shell Ginger	<i>Alpinia zerumbet 'Variegata'</i>	No	Medium	Medium	Medium-High	Fast	8'	S, F, W	White-Yellow	Insignificant	Evergreen													
Marlberry	<i>Ardisia escallonioides</i>	Yes	High	High	Low-Medium	Medium	10'	Sp, S, F, W	White	Medium	Evergreen													
Bougainvillea	<i>Bougainvillea glabra, B. glabra</i>	No	High	High	High	Fast	Na	Sp, S, F, W	Many Colors	Insignificant	Evergreen	Vining												
Butterfly Bush	<i>Buddleia davidii</i>	No	Medium	Medium	Medium-High	Fast	6-12'	Sp, S, F	Many Colors	Strong	Semi-Evergreen	attracts butterflies												
American Beautyberry	<i>Callicarpa americana</i>	Yes	High	Low	Medium	Fast	6-8'	Sp	Ilac	Na	Herbaceous Perennial	fall fruit												
* Jamaican Caper	<i>Capparis cynophallophora</i>	Yes	High	High	High	Slow	10'	Sp	Pink-White	Medium	Evergreen													
* Natal Plum	<i>Carissa macrocarpa</i>	No	High	High	Medium-High	Medium	10'	Sp, S, F	White	Insignificant	Evergreen													
* Red-Tip Cocoplum	<i>Chrysobalanus icaco</i>	Yes	Medium	High	High	Medium	12'	Sp, S, F, W	White	Insignificant	Evergreen													
String Lily	<i>Crinum americanum</i>	Yes	Medium	High	Medium	Medium	2'	S, F	White	Strong	Evergreen													
Tree Crinum	<i>Crinum asiaticum</i>	No	Medium	Medium	Medium	Medium	5'	Sp, S, F	White-Pink	Strong	Herbaceous Perennial													
Giant Spider Lily	<i>Crinum x amabile</i>	No	Medium	Medium	Medium	Medium	4'	Sp, S, F, W	Red-Pink	Strong	Herbaceous Perennial													
* Queen Emma Crinum Lily	<i>Crinum augustum</i>	No	Medium	Medium	Medium	Medium	5'	Sp, S	Purple-White	Strong	Herbaceous Perennial													
Chamal/Mexican Fern Palm	<i>Dioon edule</i>	No	High	Medium	Medium-High	Slow	5'	S	Na	Na	Evergreen	Specimen												
Spiny Dioon	<i>Dioon spinulosum</i>	No	High	Medium	Medium-High	Slow	6'	S	Na	Insignificant	Evergreen	Spines												
Keys Varnish Leaf	<i>Dodonaea elaeagnoides</i>	Yes	High	High	Medium-High	Fast	6'	S	White	Medium	Evergreen													
* Green Island Ficus	<i>Ficus microcarpa 'Green Island'</i>	No	Medium	Medium	Medium-High	Slow	4'	n/a	Green	Insignificant	Evergreen													
Thryallis	<i>Galphimia gracilis</i>	No	Medium	Medium	Medium-High	Medium	5'	Sp, S, F	Yellow	Insignificant	Evergreen													
Seven Year Apple	<i>Genipa clusifolia</i>	Yes	High	High	Medium-High	Slow	10'	Sp, S, F, W	White	Medium	Evergreen													
Firebush	<i>Hamelia patens</i>	Yes	High	Medium	Medium-High	Fast	10'	Sp, S, F, W	Orange-Red	Insignificance	Evergreen													
Heliconia:	<i>Heliconia bihai</i>	No	Medium	Medium	Medium-High	Fast	10'	Sp, S	Red-Yellow	Insignificant	Evergreen													
	<i>Heliconia caribaea</i>	No	Medium	Medium	Medium-High	Fast	12'	Sp, S	Red-Yellow	Insignificant	Evergreen													
	<i>Heliconia rostrata</i>	No	Medium	Medium	Medium	Fast	5'	S	Red-Yellow	Insignificant	Evergreen													
	<i>Heliconia stricta</i>	No	Medium	Medium	Medium	Medium	3'	F, W	Red	Innsignificant	Evergreen													
	<i>Heliconia wagneriana</i>	No	Medium	Medium	Medium	Medium	5'	W, Sp	Pink-Cream	Insignificant	Evergreen													
Gallberry	<i>Ilex glabra</i>	Yes	High	Medium	Medium-High	Slow	7'	Sp	White	Insignificant	Evergreen													
Downy Jasmine	<i>Jasminum multiflorum</i>	No	Medium	Low	Medium-High	Medium	5-10'	Sp, S, F, W	White	Mild	Evergreen													
Star Jasmine	<i>Jasminum nitidum</i>	No	Medium	Medium	Medium-High	Medium	2-4'	Sp, S	White	Strong	Evergreen	Blooms at night												



WOODY & PALM-LIKE SHRUB PLANT SCHEDULE



VILLAGE OF KEY BISCAYNE LANDSCAPE MASTER PLAN PRELIMINARY SUGGESTED PLANT SPECIES														Village Green		Village Civic Center				Pocket & Vista Parks			Medians & Cul-de-sacs	
														Village Green	Special Garden/Pond Area	Sun	Shade	Community School	Village Beach Park	Sun	Shade	Streetscapes	Sun	Shade
WOODY & PALM-LIKE SHRUB PLANT SCHEDULE														1	2	3	4	5	6	7	8	9	10	11
PLANT SPECIES		PLANT DATA																						
Common Name	Botanical Name	Native	Drought Tolerance	Salt Tolerance	Light Requirement	Growth Rate	Mature	Size	Flowering Season	Flower	Fragrance	Plant Type	Additional Characteristics											
Wax Jasmine	Jasminum volubile	No	Medium	Medium	High	Medium	5'		Sp, S, F, W	Red	Insignificant	Evergreen												
Peregrina	Jatropha integerrima	No	High	Medium	High	Medium	8'		Sp, S, F, W	Red	Insignificant	Evergreen												
Wild Sage Lantana	Lantana involucrata	Yes	High	High	High	Medium	5'		Sp, S, F, W	White	Insignificant	Evergreen												
Pittosporum	Pittosporum tobira	No	Medium	High	High	Medium	6'		S	White	Insignificant	Evergreen												
Leadwort	Plumbago auriculata	No	Medium	Medium	High	Fast	5'		Sp, S, F	Blue-White	Insignificant	Evergreen												
Bahama Coffee	Psychotria ligustrifolia	Yes	Medium	Medium	Low-Medium	Fast	4'		Sp, S	White	Insignificant	Evergreen												
Myrsine	Rapanea punctata	Yes	High	High	Medium-High	Medium	15'		Sp, S, F, W	White	Insignificant	Evergreen												
Indian Hawthorn	Raphiolepis indica	No	Medium	Medium	Medium	Slow	4'		Sp	Pink	Insignificant	Evergreen												
Lady Palm	Rhapis excelsa	No	Medium	Medium	Low-Medium	Medium	7'		S	White	Insignificant	Evergreen												
Dwarf Palmetto	Sabal minor	Yes	High	Medium	High	Slow	6'		S	White	Innsignificant	Evergreen												
Brazilian Sage	Salvia guaranitica	No			Medium-High		3-5'		S, F	Blue	Insignificant	Perennial	Annual, Attracts hummingbirds											
Mexican Sage	Salvia leucantha	No	Medium		High	Fast	4'		F, W	Purple	Insignificant	Perennial, Evergreen	Attracts hummingbirds											
Inkberry	Scaevola plumieri	Yes	High	High	High	Slow	4'		Sp, S	White-Pink	Insignificant	Evergreen												
Dwarf Schefflera	Schefflera arboricola	No	High	Medium	Low-Medium	Fast	10'		S	White	Insignificant	Evergreen												
Saw Palmetto	Serenoa repens	Yes	High	Medium-High	High	Slow	8'		S	White	Insignificant	Evergreen												
Necklace Pod	Sophora tomentosa	Yes	High	High	Medium-High	Medium	8'		Sp, S, F, W	Yellow	Mild	Evergreen												
Bay Cedar	Suriana maritima	Yes	High	High	High	Slow	10'		Sp, S, F, W	Yellow	Insignificant	Evergreen												
Sea Lavender	Argusia gnaphalodes	Yes	High	High	High	Slow	6'		W, Sp	White	Insignificant	Evergreen												
Sweet Viburnum	Viburnum odoratissimum	No	Medium	Low	Medium-High	Medium	8'		Sp	White	Medium	Evergreen												
Spanish Bayonet	Yucca aloifolia	Yes	High	High	High	Medium	12'		Sp	White	Medium	Evergreen	Spines											
Spineless Yucca	Yucca elephantipes	No	High	Medium	High	Medium	25'		S, F	White	Insignificant	Evergreen												



WOODY & PALM-LIKE SHRUB PLANT SCHEDULE

-Continue-



VILLAGE OF KEY BISCAYNE LANDSCAPE MASTER PLAN
PRELIMINARY SUGGESTED PLANT SPECIES FOR SWALES

GRASS, GROUND COVER & SHRUB PLANT SCHEDULE

PLANT SPECIES		PLANT DATA										
Common Name	Botanical Name	Native	Drought Tolerance	Salt Tolerance	Light Requirement	Growth Rate	Mature Size	Flowering Season	Flower	Fragrance	Plant Type	Comments
GRASSES & GROUND COVERS												
* Giant Leather Fern	<i>Acrostichum danaeifolium</i>	Yes	Low	High	Medium-High	Medium	8'	Na	Na	Na	Herbaceous Perennial	
Scarlet Milkweed	<i>Asclepias curassavica</i>	No	Medium	Low	Medium-High	Fast	3-4'	Sp, S, F	Orange-Red	Insignificant	Perennial, Evergreen	Tolerates wet soils
Cast-iron Plant	<i>Aspidistra elatior</i>	No	High	Medium	Low-Medium	Slow	2'	Na	Na	Na	Perennial	
Sea-Oxeye Daisy	<i>Borrchia frutescens</i>	Yes	High	High	High	Slow	3'	Sp, S, F	Yellow	Insignificant	Semi-woody Perennial	
Dwarf Natal Plum	<i>Carissa macrocarpa (dwarf)</i>	No	High	High	High	Medium	1-2'		white	Insignificant	Perennial	
String Lily	<i>Crinum americanum</i>	Yes	Medium	High	Medium	Medium	2'	S, F	White	Strong	Evergeen	
* Tree Crinum	<i>Crinum asiaticum</i>	No	Medium	Medium	High	Medium	5'	Sp, S, F, W	White	High	Bulb-Clumper	
Gold Mound Duranta	<i>Duranta erecta 'Gold Mound'</i>	No	Medium	Medium	High	Medium	2'		Purple	Na	Perennial	
Golden Creeper	<i>Ernodea littoralis</i>	Yes	High	High	High	Medium	2'	Sp, S, F, W	White-Pink	Insignificant	Semi-woody Evergreen	
* Coral Bean	<i>Erythrina herbacea</i>	Yes	High	High	High	Medium	16'	Sp, S	Reddish	Na	Semi-herbaceous	
Spider Lily	<i>Hymenocallis latifolia</i>	Yes	High	High	Mhigh-Medium	Medium	3'	S	White	Insignificant	Perennial	Clumping
Jacquemontia	<i>Jacquemontia curtisii</i>	Yes	High	High	Medium-High	Fast	Na	F, W, Sp	White	Insignificant	Evergreen Vine	
Iris	<i>Iris spp.</i>	No	Low	Low	Medium	Varies	2'	Sp	Blue, Purple		Perennial	Prefers wet conditions
Liriope	<i>Liriope muscari</i>	No	High	Medium	Medium-High	Medium	1-2'	S	Purple to White	Insignificant	Herbaceous Perennial	
Mondo Grass	<i>Ophiopogon japonicus</i>	No	Medium	Medium	Low-Medium	Medium	.5'	S	White	Insignificant	Herbaceous Perennial	
Seashore Paspalum	<i>Paspalum vaginatum</i>	Yes	High	High	High	Medium	2'	Na	Na	Na	Turfgrass	Turfgrass Substitute
Philodendron 'Burle Marx'	<i>Philodendron 'Burle Marx'</i>	No	Medium	Medium	Medium-High	Fast	3'	Na	Na	Na	Groundcover	
Sea Purslane	<i>Sesuvium portulacastrum</i>	Yes	High	High	High	Medium	4-6"	Sp, S, F, W	Pink	Insignificant	Perennial	dune stabilizer
Blue-eyed Grass	<i>Sisyrinchium angustifolium</i>	Yes	Medium	Low	High	Medium	1'	Su-W	Blue, Purple		Perennial	tolerates dry, prefers wet
Purple Queen	<i>Tradescantia pallida 'Purpurea'</i>	No	Medium	High	Medium-High	Fast	1'	Sp, S, F, W	Pink	Insignificant	Herbaceous Perennial	
* Fakahatchee Grass	<i>Tripsacum dactyloides</i>	Yes	High	Medium	High	Medium	3'	F	Gold	Na	Grass	
Florida Gamma a Grass	<i>Tripsacum floridana</i>	Yes	High	Medium	High	Medium	1'	F	Green	Na	Grass	
Wild Allam anda	<i>Urechites lutea</i>	Yes	High	Medium	Medium-High	Medium	Na	Sp, S, F, W	Yellow	Insignificant	Evergreen Vine	
Coontie	<i>Zamia pumila</i>	Yes	High	High	Medium-High	Slow	2'	S	Na	Na	Cycad	



GRASS, GROUND COVER & SHRUB PLANT SCHEDULE



VILLAGE OF KEY BISCAYNE LANDSCAPE MASTER PLAN
PRELIMINARY SUGGESTED PLANT SPECIES FOR SWALES

GRASS, GROUND COVER & SHRUB PLANT SCHEDULE

PLANT SPECIES		PLANT DATA										
Common Name	Botanical Name	Native	Drought Tolerance	Salt Tolerance	Light Requirement	Growth Rate	Mature Size	Flowering Season	Flower	Fragrance	Plant Type	Comments
SHRUBS												
* Marberry	<i>Ardisia escallonioides</i>	Yes	Medium	High	Low-Medium	Medium	10-20'	Sp, F	White	Na	Evergreen	
* Coast Saltbush	<i>Atriplex lentiformis</i>	Yes	High	High	High	Fast	8-15'	Na	Na	Insignificant	Evergreen	Very salt tolerant
* Beautyberry	<i>Callicarpa americana</i>	Yes	Medium	Na	Low-Medium	Slow	6-8'	S	Pink	Strong	Perennial	Grows in moist and dry
* Red-Tip Cocoplum	<i>Chrysobalanus icaco</i>	Yes	Medium	High	High	Medium	12'	Sp, S, F, W	White	Insignificant	Evergreen	
* Silver Buttonwood	<i>Conocarpus erectus 'sericeus'</i>	Yes	High	Medium-High	High	Slow	50'	Sp, S, F, W	White	Insignificant	Evergreen	
* Green Island Ficus	<i>Ficus microcarpa 'Green Island'</i>	No	Medium	Medium	Medium-High	Slow	4'	n/a	Green	Insignificant	Evergreen	
Thyallis	<i>Galphimia gracilis</i>	No	Medium	Medium	Medium-High	Medium	5'	Sp, F	Yellow	Na	Evergreen	
African Bush Daisy	<i>Gamolepis chrysanthemoides</i>	No	Medium	Low	High	Medium	3'	Sp, S, F, W	Yellow	Na	Evergreen	
* Firebush	<i>Hamelia patens</i>	Yes	High	Medium	Medium-High	Fast	10'	Sp, S, F, W	Orange-Red	Insignificance	Evergreen	
* Heliconia	<i>Heliconia stricta</i>	No	Medium	Medium	Medium	Medium	3'	F, W	Red	Innsignificant	Evergreen	
* Star Jasmine	<i>Jasminum nitidum</i>	No	Medium	Medium	Medium-High	Medium	2-4'	Sp, S	White	Strong	Evergreen	Blooms at night
* Downy Jasmine	<i>Jasminum multiflorum</i>	No	Medium	Low	Medium-High	Medium	5-10'	Sp, S, F, W	White	Mild	Evergreen	
* Shiny Lyonia	<i>Lyonia lucida</i>	Yes	Medium	Low	Medium-High	Medium	3-6'	S	Pink-White	Strong	Evergreen	
* Dwarf Wax Myrtle	<i>Myrica cerifera 'pumila'</i>	Yes	High	High	Medium-High	Slow	3-6'	Sp, W	Yellow-Tan	Mild	Evergreen	Grows in moist and dry
* Bahama Coffee	<i>Psychotria ligustrifolia</i>	Yes	Medium	Medium	Low-Medium	Fast	4'	Sp, S	White	Insignificant	Evergreen	
* Indian Hawthorn	<i>Raphiolepis indica</i>	No	Medium	Medium	Medium	Slow	4'	Sp	Pink	Insignificant	Evergreen	
* Inkberry	<i>Scaevola plumeri</i>	Yes	High	High	High	Slow	4'	Sp, S	White-Pink	Insignificant	Evergreen	
* Mexican Sage	<i>Salvia leucantha</i>	No	Medium	Na	High	Fast	4'	F, W	Purple	Insignificant	Perennial, Evergreen	Attracts hummingbirds
* Native Blue Porterweed	<i>Stachytarpheta jamaicensis</i>	No	High	High	High	Fast	2'	Sp, S, F, W		Na	Evergreen	
* Bay Cedar	<i>Suriana maritima</i>	Yes	Medium	High	High	Slow	10'	Sp, S, F, W	Yellow	Na	Evergreen	
* Crape Jasmine	<i>Tabernaemontana divaricata</i>	No	Low	Medium	Medium-High	Medium	8'	Sp, F	White	Na	Evergreen	

* To be used for ornamental water swales and not in roadway swales.



GRASS, GROUND COVER & SHRUB PLANT SCHEDULE

-Continue-



APPENDIX

Annuals and Perennials for Seasonal Bed Plantings

The following is a list of annual and perennial plant species identified as appropriate for seasonal “beds” that are typically located in roadway medians. The list is not meant to be comprehensive, but rather represent preliminary plant options that should be revised based on experience over time. Optimum planting season for each species is identified.





VILLAGE OF KEY BISCAIYNE LANDSCAPE MASTER PLAN
PRELIMINARY SUGGESTED PLANT SPECIES

PERENNIALS & ANNUALS PLANT SCHEDULE

PLANT SPECIES		PLANT DATA											
Common Name	Botanical Name	Native	Drought Tolerance	Salt Tolerance	Light Requirement	Growth Rate	Mature Size	Flowering Season	Flower	Fragrance	Plant Type	When to Plant	Comments
Wax begonia	<i>Begonia x semperflorens-cultorum</i>	No	Medium	Low	Medium-High	Medium	1'	Sp, S, F, W	Varied		Perennial	Oct.-Jan.	does best during cooler months
Sea-Oxeye Daisy	<i>Borrichia frutescens</i>	Yes	High	High	High	Slow	3'	Sp, S, F	Yellow	Insignificant	Semi-woody Perennial		
Asclepias tuberosa	<i>Butterfly Weed</i>	Yes	High	Medium	Medium-High	Fast	2'	Sp, S, F	Red or orange		Perennial		larval/nectar plant for butterflies
Common Tickseed	<i>Coreopsis leavenworthii</i>	Yes	Medium	Low	High	Fast	4'	Sp, S, F, W	Yellow		Perennial		
Golden Creeper	<i>Emodea littoralis</i>	Yes	High	High	High	Medium	2'	Sp, S, F, W	White-Pink	Insignificant	Semi-woody Evergreen		
Coral Bean	<i>Erythrina herbacea</i>	Yes	High	High	High	Medium	16'	Sp, S	Reddish	Na	Semi-herbaceous		
Yellowtop	<i>Flaveria linearis</i>	Yes	High	High	High	Fast	4'	Sp, S, F, W	Yellow		Perennial		likes sandy soil
Indian Blanket Flower	<i>Gaillardia pulchella</i>	No	High	High	High	Medium	14-24"	S	Yellow-Orange	Na	Perennial	Feb.-May	Use as Annual
African Bush Daisy	<i>Gamolepis chrysanthemoides</i>	No	Medium	Low	High	Medium	3'	Sp, S, F, W	Yellow	Na	Evergreen		
Beach Sunflower	<i>Helianthus debilis</i>	Yes	High	High	High	Fast	1-2'	Sp, S, F, W	Yellow-Black	Insignificant	Annual Vine		Beach Dunes
Spider Lily	<i>Hymenocallis latifolia</i>	Yes	High	High	Mhigh-Medium	Medium	3'	S	White	Insignificant	Perennial		Clumping
Iris	<i>Iris spp.</i>	No	Low	Low	Medium	Varies	2'	Sp	Blue, Purple		Perennial		Prefers wet conditions
Shore Juniper	<i>Juniperus conferta</i>	No	High	High	High	Fast	12-18"	Na	Na	Na	Groundcover		
Parson's Juniper	<i>Juniperus davurica 'Parsonii'</i>	No	High	High	High	Medium	4'-5'	Na	Na	Na	Groundcover/shrub		Beach Dunes
Kalanchoe	<i>Kalanchoe blossfeldiana</i>	No	High	Low	Medium-High	Slow	1.5'	Sp, S, F, W	Pink, White, Yellow		Perennial succulent	Sept.-Dec.	
Shrub Verbena	<i>Lantana depressa</i>	Yes	High	High	High	Medium	2'	Sp, S, F, W	Yellow		Perennial		
Wild Sage	<i>Lantana involucrata</i>	No	High	Medium	High	Fast	2-3'	Sp, S, F, W	White or Yellow	Na	Groundcover		
Liriope	<i>Liriope muscari</i>	No	High	Medium	Medium-High	Medium	1-2'	S	Purple to White	Insignificant	Herbaceous Perennial		
Mondo Grass	<i>Ophiopogon japonicus</i>	No	Medium	Medium	Low-Medium	Medium	.5'	S	White	Insignificant	Herbaceous Perennial		
Seashore Paspalum	<i>Paspalum vaginatum</i>	Yes	High	High	High	Medium	2'	Na	Na	Na	Turfgrass		Turfgrass Substitute
Philodendron 'Burle Marx'	<i>Philodendron 'Burle Marx'</i>	No	Medium	Medium	Medium-High	Fast	3'	Na	Na	Na	Groundcover		
Moss Rose	<i>Portulaca grandiflora</i>	No	High	High	High	Fast	4-8"	Summer	Yellow, pink, red, or orange		Annual succulent	Mar.-Aug.	
Tropical Sage	<i>Salvia coccinea</i>	Yes	High	Medium	Medium-High	Medium	2'	Sp, S	Red		Annual or perennial	mid Feb.-Dec.	
Sea Purslane	<i>Sesuvium portulacastrum</i>	Yes	High	High	High	Medium	4-6"	Sp, S, F, W	Pink	Insignificant	Perennial		dune stabilizer
Blue Porterweed	<i>Stachytarpheta jamaicensis</i>	Yes	High	Medium	Medium-High	Medium	1-3'	Sp, S, F, W	Blue, Purple		Perennial		
Purple Queen	<i>Tradescantia pallida 'Purpurea'</i>	No	Medium	High	Medium-High	Fast	1'	Sp, S, F, W	Pink	Insignificant	Herbaceous Perennial		
Florida Gamma Grass	<i>Tripsacum floridana</i>	Yes	High	Medium	High	Medium	1'	F	Green	Na	Grass		
Sage Rose	<i>Tumera ulmifolia</i>	Yes	High	High	Medium-High	Fast	3'	Sp, S, F, W	Yellow		Perennial		
Wild Allamanda	<i>Urechites lutea</i>	Yes	High	Medium	Medium-High	Medium	Na	Sp, S, F, W	Yellow	Insignificant	Evergreen Vine		
Coontie	<i>Zamia pumila</i>	Yes	High	High	Medium-High	Slow	2'	S	Na	Na	Cycad		



PERENNIALS & ANNUALS PLANT SCHEDULE



